

REMARKS

The Official Action dated May 24, 2005, required restriction between Group I (Claims 1-8, 18-24 and 34-44) and Group II (Claims 9-17 and 25-33). In addition, objection was made to Claim 39 as to form. Following Applicant's provisional election of the Group I claims, the Group I claims were rejected under 35 U.S.C. §103(a) as being unpatentable over the cited art and for nonstatutory double patenting.

In response to the Official Action dated May 24, 2005, Applicant affirms the election of the Group I Claims without traverse. In addition, Claims 1, 2, 4, 6, 18, 34, and 39 have been amended to correct obvious informalities and to more particularly point out the invention that is disclosed in the subject application. The subject matter of Claims 3 and 5 has been variously included in Claims 1 and 2 so that Claims 3 and 5 have been cancelled

The rejection of the Group I Claims under 35 U.S.C. §103(a) is based on eight references that are applied in eighteen different combinations. The Applicant respectfully submits that the very number of these combinations strongly suggests the non-obviousness of the invention.

Claim 1 as presently amended is patentable over the applied references in that, among other reasons, it requires:

a bottom surface that is located between said first and second side surface and that is oppositely disposed from said top surface, said bottom surface defining a generally concave surface that forms a generally continuous arc between said first side surface and said second side surface, said bottom surface, said top surface and said first and second side surfaces defining a volume wherein said internal closed cells in said composite material define 30% to 70% of said volume.

None of the applied references, either alone or when properly combined, make such structure unpatentable. Detterman (5,789,453) is limited to a composition and does not show any structure. Andres (426,320) is a plank with an open profile wherein internal closed cells in the composite material do not account for 30% to 70% of the volume defined by the plank surfaces. Cantley (6,848,677) shows various components of a fence panel. There is no suggestion as to how those components could be used as decking or how such decking would have a bottom surface as required by Claim 1. Neither is there any suggestion that internal closed cells in the composite material define 30% to 70% of the defined volume as required by Claim 1.

Chaney (422,718), like Andres, is a plank with an open profile wherein internal closed cells in the composite material do not account for 30% to 70% of the volume defined by the plank surfaces. Koffler (6,818,676) discloses no structure. It is directed to a foam composition for use in cushion materials such as carpet padding. It is cited for its recitation of a physical blowing agent. Applicant has found no suggestion as to how that composition could be used in constructing deck planks or how the blowing agents therein described could be combined with other compositions that are used in deck planks.

Patterson (6,784,230) also discloses no structure. It is directed to compositions wherein vinyl chloride resin is combined with a cellulosic material. The subject application specifically teaches away from the use of such compositions for decking making the combination of Patterson improper. Patterson is applied for its recitation of a chemical blowing agent. Applicant has found no suggestion as to how the blowing agents therein described could be

combined with other compositions such as described in the other cited references or in the subject application.

Guntherberg (6,566,436) is directed to a thermoplastic molding composition for use in garden buildings, garden equipment, garden furniture, garden accessories, and stock fences and animal cages. Guntherberg discloses no structure and it is not apparent how the composition therein described could serve as a useful decking material. Guntherberg is cited for its use of reinforcing glass fibers of particular dimensions in the composition therein described.

Ittel (2005/0058822) discloses no structure. Similar to Patterson, Ittel concerns a composition wherein lignocellulosic or cellulosic material is combined with a synthetic fiber. The subject application specifically teaches away from the use of compositions such as taught in Ittel making the combination of Ittel improper. The Official Action relies on Ittel with regard to the length of glass fibers as disclosed therein.

Claim 2 is dependent on Claim 1 and is therefore patentable over the cited references for all of the reasons stated with respect to Claim 1. In addition, Claim 2 is also patentable in that, among other reasons, it requires:

The deck plank of claim 1 wherein the arc of said bottom surface has a substantially constant radius between a first end that joins said first side surface and a second end that joins said second side surface.

None of the applied references describe or suggest a deck plank wherein the bottom surface has a substantially constant radius between first and second ends that join opposite sides of the plank surface. Detterman, Koffler, Patterson, Ittel and Guntherberg do not disclose any structure. Cantley shows a fence panel. It does not suggest that such fencing could somehow be

used for decking or how when applied as decking the fencing would have a bottom surface as claimed. Andres and Chaney have recesses in the bottom surfaces, but none of them have an arc with a substantially constant radius that extends between the sides of the plank surface as required by Claim 2.

Claims 4 and 6-8 all depend directly or indirectly from Claim 2 and are therefore patentable for the same reasons as Claim 2.

Claim 18 is a product-by-process claim in which the claimed process produces an article that is patentably distinct from the various combinations of Detterman, Andres, Guntherberg, Ittel, Chaney and Cantley as applied in the Official Action. The process of Claim 18 results in:

a deck plank having a surface that includes a top surface, a bottom surface that is oppositely disposed from said top surface, and first and second side surfaces that cooperate with said top and bottom surfaces to define a volume wherein said internal closed cells in the cooled, polyvinyl chloride/glass melt define 30% to 70% of said volume.

Detterman, Guntherberg, and Ittel disclose no structure whatever. Cantley discloses a fence panel that is made according to an injection molding process. However, nothing in Cantley suggests that the volume within the surfaces of Cantley have internal closed cells that define 30% to 70% of that volume. Andres and Chaney are open structures wherein the volume of internal closed cells (if any) in the composite material is not within the 30% to 70% range of the volume defined by the plank surfaces as required by Claim 18.

Claims 19-23 depend from Claim 18 and, therefore, among other reasons are patentable for the same reasons that are stated with respect to Claim 18.

Claim 34 is a product-by-process claim in which the claimed process produces an article that is patentably distinct from the combinations of Detterman, Andres, and Cantley as applied in the Official Action. The process of Claim 34 results in:

a deck plank having a surface that includes a top surface, a bottom surface that is oppositely disposed from said top surface, and first and second side surfaces that cooperate with said top and bottom surfaces to define a volume wherein said closed voids in the cooled polyvinyl chloride/glass melt define 30% to 70% of said volume.

Detterman discloses no structure whatever. Cantley discloses a fence panel that is made according to an injection molding process. However, nothing in Cantley suggests that Cantley has internal closed cells in the cooled melt that define 30% to 70% of the volume within the panel surfaces. Andres and Chaney are open structures such that the volume of internal closed cells (if any) in the cooled melt is not within the 30% to 70% range of the volume in Claim 34.

Claims 35-44 are dependent, directly or indirectly, on Claim 34 and are therefore patentable, among other reasons, for the same reasons stated with respect to Claim 34.

The nonstatutory double patenting rejection of Claims 1-8, 18-24, and 34-44 also has been overcome. Claims 1, 18 and 34 are independent claims. Each of them require a deck plank wherein the surfaces of the deck plank (i.e. a bottom surface, a top surface and first and second side surfaces) define a volume and wherein internal closed cells in the composite material define 30% to 70% of that overall volume. The nonstatutory double patenting rejection is based on the combination of Serial no. 10/001,730 and Andres. The Official Action concedes that "10/001,730 does not specifically disclose the shape of the foam material." Andres is an open

structure such that internal closed cells (if any) in the composite material do not comprise 30% to 70% of the volume that is defined within the top, bottom and side surfaces. Claims 19-24 and 35-44 depend from Claims 18 and 34 respectively and are patentable, among other reasons, for the same reasons that are stated for Claims 18 and 34. In addition, Claims 23 and 24 further require that the blowing agent is mixed with a "carrier material" as further specified therein. Neither Serial No. 10/001,730 nor Andres describe or suggest a "carrier material" as required by Claims 23 and 24. Accordingly, Claims 23 and 24 are patentable for that additional reason as well.

Claim 2 depends from Claim 1 and is patentable for the same reasons that are stated with respect to Claim 1. In addition, Claim 2 further requires that the bottom surface of the plank has an arc with "a substantially constant radius between a first end that joins said first side surface and a second end that joins said second side surface". Andres has no such substantially constant radius arc and therefore Claim 2 is patentable for this reason as well as others. Claims 4 and 6-8 depend directly or indirectly from Claim 2 and are therefore patentable, among other reasons, for the same reasons as Claims 1 and 2.

The other references that have been cited in the prosecution of the subject application but not specifically applied to the claims are not seen to make the presently claimed invention unpatentable.

Serial No. 10/800,501

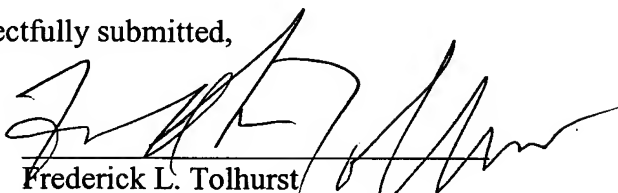
Amdt. and Request for Consideration dated October 17, 2005

Reply to Office Action of May 24, 2005

Accordingly, Claims 1, 2, 4, 6-8, 18-24, and 34-44 are believed to be in condition for allowance and such allowance is hereby respectfully requested.

Respectfully submitted,

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